

# THE NORTH CHICAGO STREET RAILROAD COMPANY



and  
its  
LINES.

1889



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THE Division of the City of Chicago lying north of the river, and known as the "North Side," is considered by residents and visitors alike as containing more of interest to those who cherish the quaint landmarks of earlier days, than any other section. Beside having the advantage of close proximity to the business district, it has the prestige and historic importance of having been the site on which the pioneers of the city and the great northwest first congregated. The ground was the highest hereabouts, and from the Indian hut, which was the early nucleus, has grown the colossal city of which every Chicagoan is justly proud. And this section, too, has steadily maintained its position in the general development, its last great improvement being its cable car system, which has no superior anywhere. Its good effect, in fact, has already been materially felt, yet there are still greater benefits in store for the people, which will be the more thoroughly appreciated as the disadvantages of newness of construction gradually disappear, and the feeling of opposition sought to be engendered by certain public prints has lost its force and been forgotten.

It is a part of the history of all new enterprises that they have attracted a large share of public attention, and more or less of criticism. From the building of the Tower of Babel down to the smallest of modern engineering or constructive triumphs, there have been many to criticise and condemn; and, as a rule, those knowing the least have generally been found to be the most captious and severe. It is probably unreasonable to expect that such criticisms should always be fair, for the reason that it is next to impossible for any two minds to see the same object alike; but however adverse a critic may feel, there ought to be with it all a



spirit of sincerity and candor, which is the natural adjunct of honesty of purpose. The facts are, nevertheless, that such is not



THE CRITIC—FROM  
LIFE.

always the case, and cannot be until human selfishness yields to higher and nobler instincts, and until truth becomes closer allied to the consciences of that class in the world which so uniformly fails to discover anything of good in the endeavor of others. The North Chicago Street Railroad Company has for several years had a peculiar experience, and has grown to its present magnitude and success through a maze of falsehood, and despite the persistent industry of a criticism strange to integrity of intention, and foreign to anything akin to a spirit of common fairness.

The daily *News* has been a shining example of the sordid and carping critic alluded to, and this much can be said without apology or fear of contradiction. Since the day the company and the property in question passed into its present control, this particular publication has never missed an opportunity to pervert and distort the truth, and to magnify and embellish falsehood in referring to it and its interests. Starting to criticise, it very rapidly developed into an organ of malignant abuse, and it has never deviated from its line of policy long enough to be even suspected of a disposition to be just. While the other papers have deprecated whatever shortcomings there have been, and at times, through ignorance of the true situation, been led into extravagant criticism, they have endeavored to present the real facts and difficulties with reference to the introduction and operation of the cable system. Not so with the *News*, however, for it has grown in bitterness toward the company and its management, and delighted in exaggerating the slightest hindrance into a great public calamity. The stranding of the cable, which is entirely unavoidable at times, has been heralded as a failure of the entire North Side car system, while the occasional breaking of a grip has been worth a column of anathemas of the strongest order. If a loaded wagon happened to break down on the railway tracks, and impeded travel



THE CRITIC—FROM  
"JUDGE."

for a few minutes, the company has been unmercifully assailed, and the city council called upon to revoke its charter; where a passenger has been injured by jumping off a car while in motion, public prejudice has been appealed to in the most unprincipled and sensational style; and when a cable has parted under the severe service to which it has been subjected, or an unforeseen accident has occurred, the common adjectives have been inadequate to sufficiently denounce the management of the road, or to decry



LASALLE AVENUE POWER-HOUSE.

the entire North Side railway system. In fact, the paper in question has played the part of a virulent enemy from the first, and few things have been too harsh for it to say, and few ends too devious for it to resort to in the fulfillment of its self-imposed mission. It has not only spared no pains to impair the property of the company, to retard its progress and success, but it has been equally tenacious in its endeavor to injure the North Side generally. It has berated holdings of all kinds, and

even gone so far as to try and create an exodus of residents from that division. By false publications and malicious inuendo it has sought to depreciate real estate values, and left nothing undone that could possibly contribute to the demoralization it was seeking to bring about. That it has not been successful is not its fault, and it is highly gratifying to the company to note its failure. In fact, its course has had the effect to disgust all classes, and if indications are to be relied on, it is now reaping the reward of its disgraceful conduct

In this connection it is probably worth while to show what has been the effect of the cable road on values: Godfrey Schmid, a large property owner, writes: "Everybody knows that property on the North Side has risen in value since the cable lines were built, some of it 50 per cent., and I am sure none of it has been damaged." Continuing, he adds: "It (the cable) has been a decided advantage to the residents and property owners, the daily *News* to the contrary notwithstanding." E. S. Dreyer & Co. write that "renting on the North Side is better this year than ever before. \* \* \* The value of real estate has considerably increased, compared with prices two or three years ago, and the improvements and new buildings erected in the last two years eclipse those of any time prior to the inauguration of the cable system." A. Loeb & Son say in a letter "that the cable system has been advantageous to real estate on the North Side." W. D. Kerfoot & Co. write: "We have been selling for the past few years a great deal of property in the southern portion of Lake View, and find by comparing the sales made two years ago with those made recently that prices have advanced fully 100 per cent." Turner & Co. also bear testimony to the benefits of the cable system and its good effect on property. Dozens of other letters of the same character from real estate dealers, owners and agents could be quoted, but these are sufficient to expose the evil spirit which has prompted the *News* in its assaults upon North Side interests, and at the same time are an answer to its libels. It has had nothing akin to "the milk of human kindness" in its policy toward this company, for even when the strike was on it encouraged the strikers, and did all it could to embarrass the situation and prolong the inconvenience to the public of being deprived of transit facilities. Its highest ambition at all times has been that it continue consistent in its warfare,



right or wrong, and it has only succeeded at the expense of its dignity as a journal, and its character as a newspaper.

The North Chicago Street Railroad Company has heretofore taken no notice of the disreputable conduct of the *News*, for it is engaged in an entirely different line of business, but it has no excuse to offer at this time. The publication of these pages was determined upon as a means to present a few facts touching the relation of this corporation to the public, and at the same time to defend the residents and property-owners of the North Side against the calumnies that have been heaped upon them over its shoulders. Reference to what has been said against

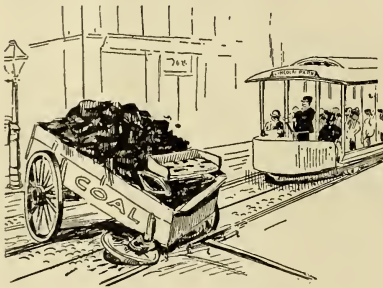


SECTION OF THE CABLE CONDUIT AND TRACKS.

the company, therefore, is but a natural incident. The answers of hundreds to the daily onslaughts against the management could be given, but there is no desire to multiply words. A statement of the facts, though they be already known to cable-car patrons, will prove the strongest possible defense.

To start with, just as soon as the present management took hold of the North Side road, it saw the absolute necessity of relieving the bridges connecting with that division. This was demanded alike by the commerce of the river and the residents of the northern section of the city, who were clamoring for rapid transit. The South Side already had a cable system, and why not the North Side? This was the question that confronted the company, and it at once

set about answering it. There was the La Salle street tunnel, which was almost entirely abandoned by the public, but when the company offered to utilize it in the establishing of a cable system, it was met with a proposition to pay a rental of \$25,000 a year for its use, or in lieu thereof to construct double steel bridges at Wells and Clark streets. It chose to build the bridges, partly in recognition of the public demand for increased facilities for crossing the river, and partly for financial reasons, and, notwithstanding the inconvenience growing out of their construction, there are now no regrets on the subject, unless it be that such desirable improvements were so long deferred by the city authorities. A great deal has been said by those inconvenienced about the time taken to build the Wells street bridge, and there was also some complaint in reference to the one at Clark street. The facts are, however, that they were both built more rapidly than any of the other



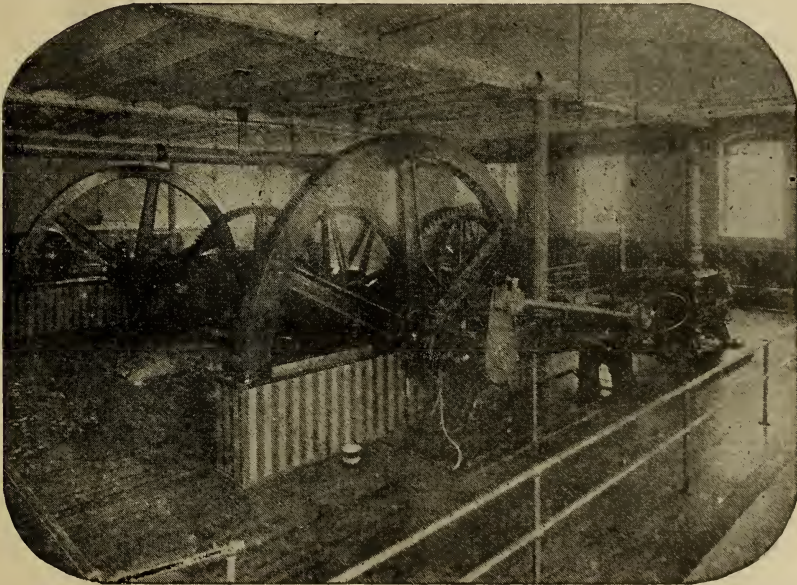
"ANOTHER CABLE DELAY."

bridges across the river or its branches, for it took six months to put up the State street bridge, which is a single structure, while the double bridges erected by the city have occupied from seven to nine months each.

With the acceptance of the La Salle street tunnel the company saw the solution of both the bridge nuisance and the rapid transit question, fully realizing, however, that the future was not to be a bed of roses. It saw, through its engineers, extraordinary difficulties in the way of successfully operating a cable system—the tunnel grades, the loop curves, and the crossing of cables at the north approach—but was determined to spare neither pains nor expense in meeting the mechanical problems presented. The work was undertaken and pushed to completion, and its success is the triumph of one of the most intricate and difficult pieces of engineering in the railroad construction of the world. There were cable systems already in operation, it is true, but nowhere was there a similar condition of affairs, or like obstacles to overcome, for while the material and construction were the best, nothing short of long and careful experience could fit men to the new situation, or adjust the vast improvements to the necessities of the public in



active use. The process of operation was, therefore, necessarily tedious; yet, with it all, it can be truthfully said that the history of cable roads fails to show a system anywhere of any pretension that begins to compare with that of the North Side for freedom from accidents and delays, and for safety and ease of action. While it is a fact that mishaps growing out of inexperience have occurred, there have been fewer of them than on any other road of equal magnitude, and they have been as promptly remedied as discovered. There have been a few errors of construction, too, and



VIEW OF ENGINE ROOM, LA SALLE AVENUE STATION.

annoyances have been the result, but the company has corrected every trouble of the kind as soon as it was made apparent. One of the earliest causes of complaint was the jamming of cars at the junction of Clark and Centre streets, but the completion of the Lincoln avenue cable line did away with all of that. The most prolific source of annoyance, however, was found at the north end of the tunnel, where the cables crossed and re-crossed, and where the curves and switches were a menace to engineering skill and almost jeopardized the success of the system. The difficulties there developed one by one, and, as quick as they appeared, were corrected, whether it meant

the expenditure of one dollar or ten thousand dollars. In remedying one trouble, too, it often occurred that another was created, yet the company has never faltered for a moment, but has pushed boldly forward, until it can boast of the *best equipped* and most *thorough cable system* to be found anywhere. Its aim has been to have the best that could be secured, no matter what the cost, and the management unhesitatingly maintains, and without the fear of truthful contradiction, that it has succeeded, notwithstanding the oft-repeated statements of its enemies to the contrary. The company, in a word, has gone on to success, and not only answered the vituperation of its enemies, but has overcome the prejudices they have so industriously sought to create and foster in the minds of the public at large, and it earnestly invites an examination and comparison of its "plant," feeling confident that the result will more than sustain all that it has ever claimed.

When the present management entered upon the control of the North Side car system in March, 1886, there were thirty-five miles of track in operation; now there are sixty-eight miles, of which fifteen are cable. The residents of that division were in the midst of the bridge nuisance, which seems, however, to have been almost forgotten by the croakers the moment it disappeared. The facilities for getting across the river were so inadequate that the public prints were advocating filling the stream, and many times committees of citizens had waited on the old management of the company to induce it to use the tunnel to afford relief, but without avail. The bridges, in fact, were regarded as a positive hindrance to North Side growth, and public sentiment was very strong against them. Because of their insufficiency, it was no unusual thing to see a line of teams at either of the approaches several blocks long, whenever they were swung for a few minutes, the disastrous effect of which, on both business and travel, can scarcely be estimated. Figures made, showed that the bridges were causing a loss in time of about three hours out of every twelve—or twenty-five per cent.—to the population having to pass over them. But all of this is now as a dream, and scarcely remembered by the thousands who glide through the tunnel day after day, in defiance of the exactions of commerce in the river above them, and oblivious to the existence of the bridges to the right or the left, and are dropped with equal facility at either their office door, or their wonted purchasing counter. Then, again, it should be kept in mind that the

introduction of the cable system has not only cured the bridge nuisance, but it has supplied rapid transit at the same time. In the days of horse cars the speed was six miles an hour, while in the days of the cable it has grown to eleven miles on Clark and Wells streets, and twelve on Lincoln avenue. The increase, however, is better shown by the actual time card, which was  $4\frac{1}{2}$  minutes on Clark street, by horse cars, from the city limits to Washington street, and is now 28 minutes by cable cars—or a saving of 15 minutes, leaving the former loss of time at the bridges entirely out of account. And this saving is divided between the 100,000 people who now patronize the North Side cars, as against the 60,000 who were bridged every day in the pre-cable period. In other words, the 100,000 who now ride are not only saved the 25 per cent. loss of time on account of the old

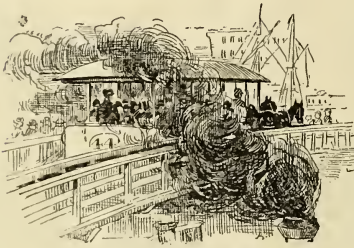


THE BELL HAS RUNG—YOU KNOW HOW IT USED TO BE.

bridge nuisance, but they are also enjoying an increase of about 35 per cent. in speed of travel, which the company's 60,000 patrons in the days gone by were a stranger to. But these are not all of the advantages the cable has brought, for with the increase of speed has come a large growth in the capacity to carry passengers. While the population of the North Division has multiplied and extended, the company has met the improved condition by increasing the carrying room of its rolling stock three times as great as has been the growth in the number of its patrons. That is, for every passenger added, the company has provided three new seats, so it will be seen that, despite the carpings of the evil disposed and jealously inclined, a studied effort has been made in every direction to cater to the necessities of the public, and to afford a safe, rapid and comfortable means of transit. The



measure of success met in the endeavor can only be computed by comparison, or fully appreciated by reverting to the old order of things. There is no longer any occasion for swearing at the bridge-tenders, or waiting at the viaducts in dense clouds of smoke from the engines below, for the arrival of a tug to pull a vessel out of the draw; there is no more stopping for slow and balky teams to get out of the way, nor is the patron of the cable car the victim of the cranky and perverse army of teamsters that existed in the "good old days of yore;" the relieving of the bridges of much of the car traffic, too, has been of untold advantage to business of all kinds; there is no longer the jam of cars and other vehicles in almost endless tangles at prominent down town street intersections; patrons of places of amusement are delivered as though from their carriages wherever their tickets call for; and instead of the old bouncing process over rough rails and an im-



DO YOU REMEMBER?

perfect road-bed, the passengers ride with safety and comfort over as smooth a surface as it is possible to maintain. In fact, the condition has been so much improved that, though the cable should break every day, and the very worst said of the system by its enemies should be true, there are none so obtuse as to desire to return to horse-cars or horse-car annoyances. The effect of rapid transit and abolishing the bridge nuisance has been to give the North Side a boom, publications to the contrary notwithstanding, and as the cable system develops, extends and improves, as it is doing every day, its friends will multiply and its enemies disappear in the mire of their own making. Nothing tells the story of the boom better than real estate sales, and a few figures may not be out of place. In 1886, a month after the present company took hold, the southwest corner of Clark and Schiller streets sold for \$20,000, and last fall E. S. Dreyer & Co. resold it for \$28,000; ninety-six feet on Dearborn avenue, near Indiana street, sold in 1887 for \$30,000, and was a year later sold for \$36,000. C. F. Collott & Co. report the sale of the southwest corner of Clark and Illinois streets, in 1885, for \$52,000, and that they have recently refused \$80,000 for the same property; they sold fifty feet on the corner of Barry and Evanston avenues, in

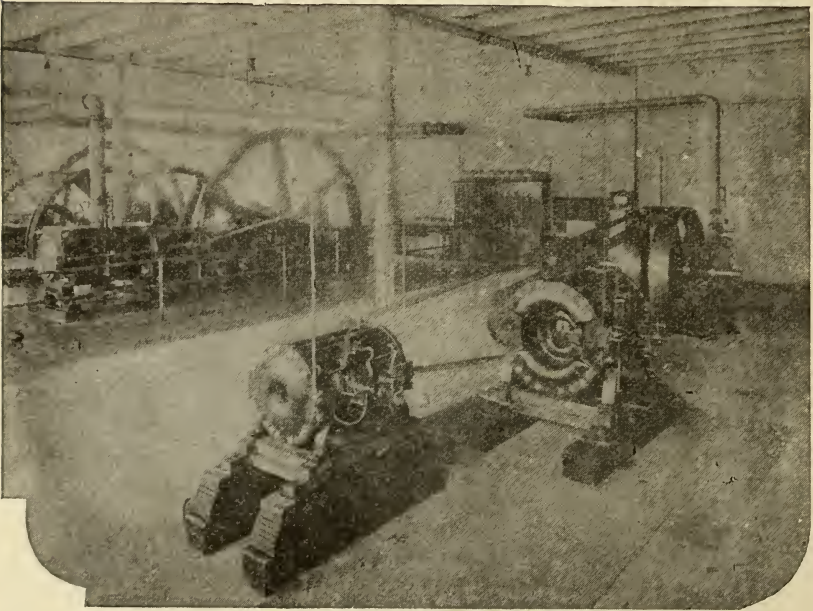
1887, for \$5,000, which they have since resold for \$7,000 ; in 1884 they sold 220 feet on Lake View avenue boulevard for \$90 a foot, which they resold a few months ago for \$218 a foot ; they also report a sale on Clark street, near Fullerton avenue, of a piece of property for \$12,000, which they sold just before the cable was put in for \$6,400. Page after page of similar illustrations could be given, but these suffice to show the utter ridiculousness of the assaults against North Side values, and also demonstrate the extreme foolishness of the attacks on this company in the endeavor to destroy public confidence in its management.

An effort has also been made by the critic enemies of the North Chicago Street Railroad Company, and the traducers of North Side interests, to convey the idea that the company's "plant" was cheaply constructed, that the poorest kind of material had been used, and that the entire cable system was therefore necessarily faulty, if not an absolute failure. Such propositions, in view of the fact that the company has voluntarily invested millions of dollars in the improvement, are scarcely worth answering ; yet it may not



be amiss to allude to this particular branch of the subject, especially since the success of the entire system hinges on the character of its construction. The company, as before stated, saw before it great engineering difficulties to start with, and to the end that there should be as few failures as possible, insisted from the beginning on first-class workmanship, and also that the best material should be used in every part of the undertaking. It was necessary to have a perfect conduit, firm and smooth tracks, ample manholes, and a complete electric and drainage system ; hence, in making the drawings for the ground work, and in approving the details of the plans, the greatest care was exercised. The specifications on which the work was done, too, were the most exacting, and the result is summed up in the announcement that there is nowhere to be found—the company's foes to

the contrary notwithstanding—better concreting and masonry, or more profuse use of material in construction. These were the first considerations to be attained, and the very basis of the success which has crowned the vast expenditure of money in the interest of rapid transit for the North Side. With faulty construction the entire system would have been the failure certain individuals have desired it should be; whereas, with proper construction, it has proved one of the best ever contracted for. To perfection of workmanship, however, had to be added machinery and other

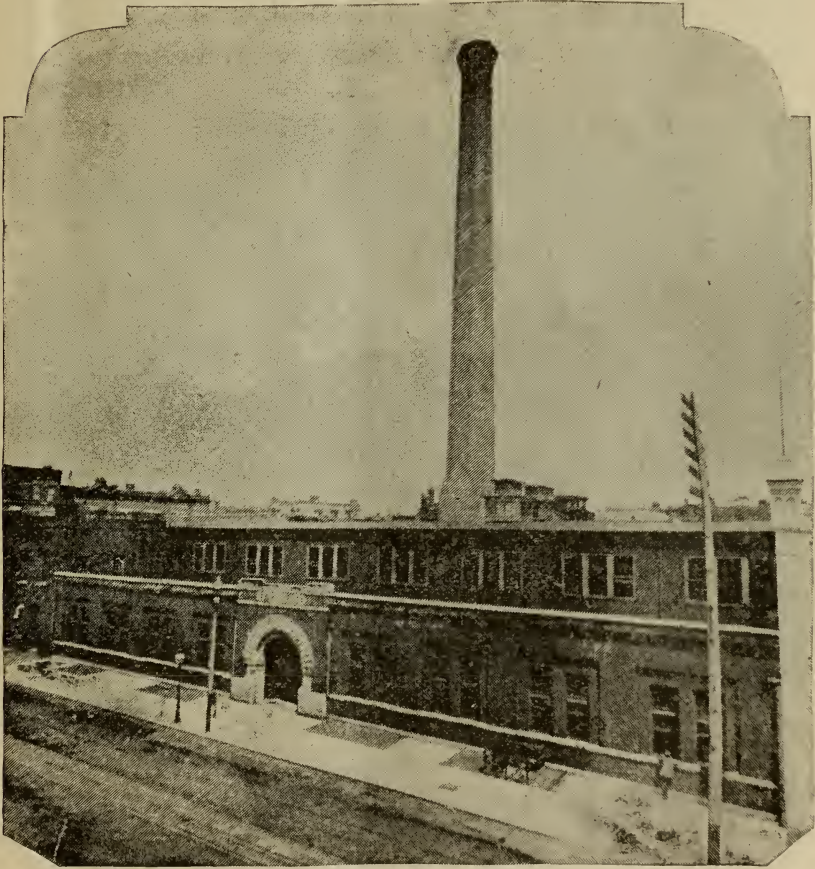


VIEW OF ELECTRIC PLANT, LASALLE AVENUE STATION.

equipments, and in this direction nothing has been spared. And it is not saying too much to claim that the company's engines are equal to the best anywhere manufactured—that there are none which surpass them—and that its engine-houses or power-stations are the finest and best adapted of any in the country. It is not going too far, either, to claim that with the substantial elegance which characterizes the “plant” throughout, nothing has been omitted that could contribute to public safety in the operation of the cable system. Every known device and precaution have been seized upon, and the effect is seen in the scarcity of



accidents in the operation of the company's several lines. One of the notable and most modern devices in this direction is an electric signal, by which the conductor of a car can communicate with his power-house at every street intersection. If the cable should strand at any point, or the "grip" become unmanageable or go wrong, as it sometimes does, the conductor can signal the engineer



CLARK STREET POWER HOUSE.

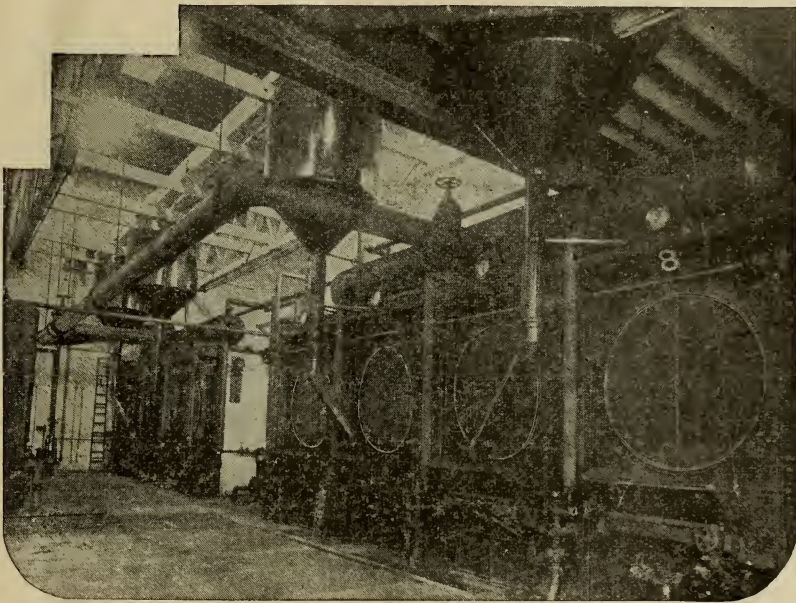
miles away and stop the cable with about the same facility a driver can stop his horses. Improved double brakes have also been applied, as another preventative of accidents; new coupling apparatus has been added, and in the interest of public comfort and convenience the lighting of the La Salle street tunnel by electricity has been supplemented by automatically lighting many of the cars

by the same means, and the purpose of the company is to ultimately light all of the closed cars passing through the tunnel in the same way. In fact, the management has been so careful in every detail, and so solicitous in providing the public with rapid transit facilities, that it takes particular pride in inviting a comparison of its system with that of any and all others, whether at home or abroad. And it has no desire, either, to abridge the comparison, but it is entirely willing that it should start with the construction and extend to the operation and direction, and has no concern or apprehension as to what the verdict will be. Nowhere will better constructive work be found ; its engines and machinery are the best that could be procured ; the tracks are as smooth as a floor ; accidents have been comparatively few ; delays and mishaps have been less than on any other line of its length, and the cars and general accommodation could scarcely have been better. And in this connection it may not be out of the way to note that the cable, nor any part of it, has ever been stopped an entire day since it commenced running, while it is notorious in the history of other cable lines that they have been stopped from breakages or other causes for weeks at a time before they began to work smooth or anything like satisfactorily.

The company has three power-houses, one located at the corner of Clark and Elm streets, a second at the corner of Lincoln and Wrightwood avenues, and a third at the corner of La Salle avenue and Illinois street. The first-named is the central or main station, and is a model of neatness and order. It contains four Corliss engines of 500-horse power each, four sets of cable-driving machinery, eight massive boilers, and the fuel is handled by an elevator worked by a link belt apparatus. These engines drive three distinct cables, the combined length of which is about 56,500 feet. One of them runs on Clark street north to within 150 feet of the limits car-house and returns, and is 22,700 feet long ; the second cable runs south on Clark street to within 150 feet of Illinois street and returns, being 9,200 feet long ; and the third cable runs from the power-house through a subway on Clark street to Division street, and on Division to Wells street, north on Wells street to the intersection of Clark and Wisconsin streets, where it passes around a large drum and returns to a point 150 feet north of Illinois street, around another drum, back to Division, through the subway, and to the power-house, the cable being 22,000 feet long.



The Lincoln avenue power station contains two Corliss engines of 300-horse power each, six boilers and two sets of driving machinery, and the plant is used to move the Lincoln avenue cars between the junction of Centre and Clark streets and Wrightwood avenue, the cable for the purpose being about 18,000 feet long. At the La Salle avenue station there are two Corliss engines of 300-horse power each, one set of driving machinery and five boilers, and the dynamos which supply the light for the station, tunnel and cars. This nest of machinery and power is used for the cable in the



BOILER ROOM—CLARK STREET POWER HOUSE.

tunnel and the down-town loop, which is 12,500 feet long. On account of the heavy service this particular piece of cable has to perform, the wear on it is very great, hence it has to be frequently renewed. It was some time before its life could be determined ; experience, however, has fully demonstrated the fact that the appearance of the loop cable entirely fails to indicate its actual condition. It may be, for instance, that only a few strands are broken, but at the same time the material is often badly crystalized, and liable to go to pieces at any moment.

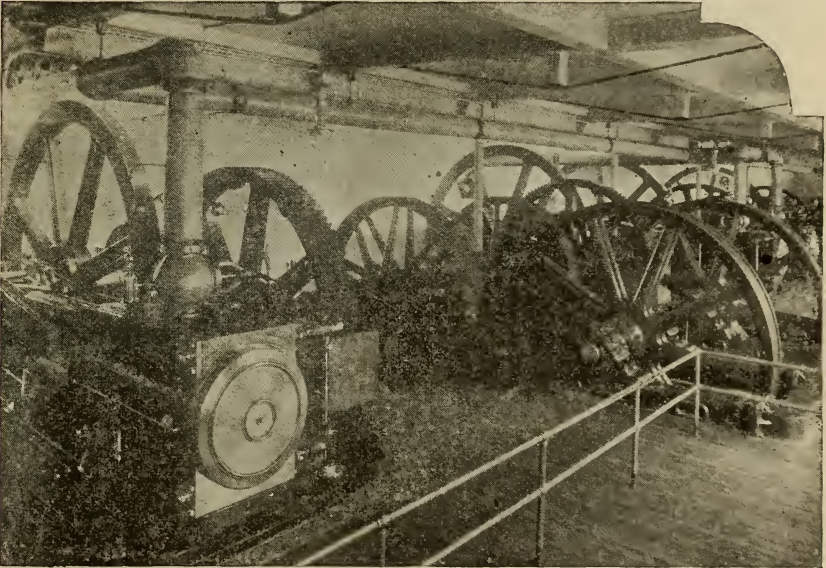
The cars operated on the several lines all make a circuit through



the car-houses at the northern terminus—going in from the right-hand track and coming out on the left—which avoids the delay and confusion incident to the use of horses and the turning and switching of cars. The cable on these lines weigh over 75 tons, and the entire mass is driven past a given point, supposing the cable to be continuous, once in about every sixty minutes, carrying with it nearly one hundred cars which are very often heavily loaded. This, however, fails to convey anything like an adequate idea of the service performed by the engines, or even the cable, for there is scarcely a way of computing the extreme tension emergencies often create, nor yet of estimating the exactions of such extraordinary duty on machinery used as this is. It is enough to say, perhaps, which cannot be too strongly emphasized, that both the cable and the power have been found ample, and they have not only worked satisfactorily, but have best answered the charge against the company that it was dealing in cheap and inferior things. The machinery has proved without a flaw, and not a single break-down has occurred at the power stations, which is a remarkable circumstance, especially where so great a service has been demanded; and, so far as the main cable is concerned, by which is meant all north of Illinois street, the company could not have asked for better results. There have been very few breakages, and the delays on account of the cable proper have scarcely been worth mentioning. It is true that, before the Lincoln avenue line was started, there was considerable complaint growing out of the delay incident to transferring and the massing of cars at the intersection of Clark and Centre streets, but it was not chargeable to the cable system, and disappeared the earliest possible moment the cause could be removed. In other words, there has been nothing in the operation of the main cable which has not been assuring, and while the company has regretted more than its patrons possibly could the delays and vexations growing out of the starting of new machinery, it congratulates itself that it has been so heartily sustained by public faith in its constant endeavor to right wrongs, correct shortcomings, and serve its patrons in an entirely satisfactory manner.

Whatever trying difficulty has appeared in the operation of the "plant," has not been with the machinery, nor with the main cable, but with the cable through the tunnel and around the downtown loop. The trouble has been, however, of purely an engineering character, and the public failing to fully appreciate the

obstacles to be overcome, the company has not always been surprised at the complaints made, nor yet prepared to say that some of them were not flavored with a degree of justice. The passenger who was suddenly stopped in the tunnel when in a hurry to get to business, or back home, was naturally indignant, simply because he knew nothing of the underlying cause, and when subsequently reading in one of the papers that cheap machinery and bad management had been the source of his misfortune, his indignation was simply fanned into a flame of anger. The situation would have been different if the passenger could have understood that



VIEW OF ENGINE ROOM, CLARK STREET POWER HOUSE.

behind all such mishaps was an unavoidable cause, and that the company had in its constant employ a corps of experts who were doing nothing else but trying to anticipate all such conditions and make public inconvenience an impossibility. Many difficulties that could not have been foreseen by the engineers were timely met and removed, but the mass of them developed so slowly as to be quite annoying at times. The earliest and most serious trouble at the north approach to the tunnel was the fact that the cable crossed and re-crossed at all kinds of angles, and with the result that the "grips" were being occasionally broken at that point, entailing

more or less confusion and delay. The apparatus originally supplied to remedy the difficulty had failed to do the work, and nothing short of absolute experience could have shown it. The cars had to be drawn around the curves by horses, as one of the results, and the situation was very often exasperating, but no more so to the public than to the company, to which every delay, from whatever cause, was a positive loss. It took months of hard work, and most of it was after the cable had been stopped for the night, and the company's patrons were asleep, to remedy the trouble. The device put in to lift or lower the cable, or switch a car, one night, was found the next day to be not entirely reliable in actual use, and thus the unsatisfactory condition of affairs was prolonged, but the remedy was finally found, and is now in successful use. Another trouble, which it took time to correct, was with the "grips," the effect of which was seen in the cars being stuck in the tunnel when heavily loaded. This always occurred in the hurry time of day, hence was particularly aggravating. It could not possibly have been foreseen, and it was left to actual experience to be righted. Even after the difficulty was discovered, it took quite a while to remedy it, because the cars had to be kept going, but it was finally overcome, and no more has been heard about weak "grips," and stoppages in the tunnel have grown to be so few and far between that memory goeth not back. And when the "grips" had been strengthened, which admitted of trains being run instead of single cars, it was soon discovered that the cable needed to be larger to meet the increased weight to which it was subjected. It was a very simple matter to make the change, but it took time, and carried with it further public annoyance, but it was made without losing a trip or embarrassing a passenger. This change, however, simple as it was, brought others, which has been the uniform history of the "loop" system in reaching its present degree of perfection. With a strong "grip" and an enlarged cable, train after train of cars could be drawn under the river without limit, but lo, and behold! it was discovered one fine day by actual experience that to mount the tunnel grades and gracefully swing around the "loop" curves it would be necessary to increase the power at the engine-house by putting in additional and stronger machinery. This, too, was very simple, but how was the change to be made without interfering with travel? The patrons of the company will remember when most of the riding was done on the



grip-cars, and when there was abundant complaint about the want of accommodations, morning and evening, all of which explains how the transformation was made. One of the old engines had to be thrown out of use, while more powerful ones were put in its place, and to do this the company had to reduce the number of cars moved by the cable, with the result that another unavoidable cause of complaint was afforded. The public at large, however, knew nothing of the facts, and the company's critics failed to furnish any information on the subject.

So little is known about the "loop" cable, the intricacies of its adaptation and the severity of its service, that a few words of explanation may be in place. It starts from the power station at



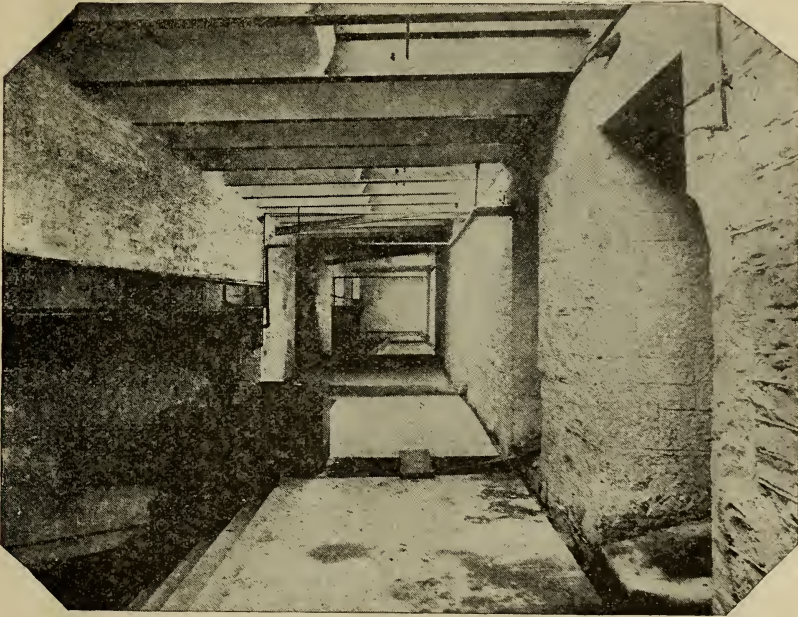
ONE OF THE EFFECTS ON THE NORTH SIDE.

the corner of Illinois street and La Salle avenue, and, going straight through the tunnel, makes the curve around Monroe, Dearborn and Randolph streets, and returns to the "vault" on La Salle avenue. From the latter point it veers to the right, carrying the cars over to Clark street, and to the "vault" south of Indiana street. It passes around a large drum at its junction with the main cable, and returns to the "vault" on La Salle avenue, where it takes another turn and wends its way along Illinois to Wells street, taking the Wells street cars with it to the "vault" just south of Indiana street. On Wells street it hugs another drum and returns to the La Salle avenue "vault" and the power-house, having in its course taken the cars from both Clark and Wells streets, drawn them to the La Salle avenue "vault," and thence through the

tunnel, around the "loop," and delivered them again at the points from which they were received. It has thus taken the cars in opposite and lateral directions at the same time, and though this description of its course is necessarily imperfect, it ought to be sufficient to convey to the uninitiated some sort of an idea of the intricate and arduous nature of its work. In performing this service, too, which ordinarily takes seventeen minutes, it should be borne in mind that sixteen distinct curves have to be rounded, each containing a nest of twenty wheels, all of which have a specific duty to perform. These are not the commonplace carrying pulleys found in the base of the conduit, but comprise a mechanical construction as accurate as that of a watch, and as essential to the success of the "loop" as the cable itself. There are 320 of these wheels in all, and each of them has to bear its share of the immense squeezing, binding and pulling strain to which the whole is subjected. The breaking of any one of them, which can no more be foreseen than can the coming of the end of the world, is liable to occur at any time, the effect of which has always been to create a delay and tunnel blockade. Accidents of this kind, however, have been very few, but such as have occurred have been used against the company and the North Side without the slightest show of justice or reason.

But a better idea of the extent of the strain on the cable and the nests of machinery referred to may possibly be gained by going into figures somewhat. For instance, in the busy hours of the day the "loop" cable has attached to it, as so many knots in a string, about sixty-five loaded cars at one time, which are scattered along the tracks, on the tunnel grades, and on and off the curves. The cars in themselves weigh from 6,500 to 13,000 pounds each, according to size, the average being, probably, about 9,750 pounds, which would make their total weight 633,750 pounds, or considerably over 300 tons. These same cars contain, when loaded, at least 6,500 people, weighing at a fair estimate not less than 900,000 pounds, or 450 tons; so it will be seen that the cable, which is a little over an inch and a quarter in diameter, is often drawing 750 tons in and out of the tunnel, and that the nests of wheels at the curves already described are not only bearing this immense weight, but the weight of the cable in addition. These figures, however, fail to begin to convey a correct idea of the real condition of affairs, for, while they approximately show much,

they cannot, from the very nature of things, faithfully represent the actual situation. They show the strain to which the cable is exposed, and indicate the weight the curve wheels have to carry, and leave one to imagine something as to the power behind the system necessary to keep it in motion; but no account is taken of the friction, the wear and tear, the extraordinary tax of starting and stopping cars, nor of the numerous other things which go to increase the severity of the "loop" cable service. The wheels for instance, act as so many mechanical hands, and are



INTERIOR OF CLARK STREET VAULT.

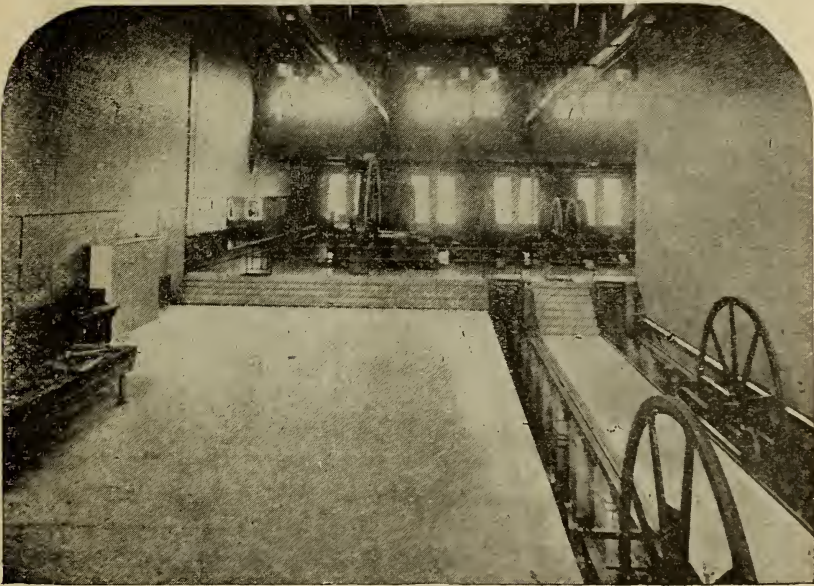
bending the wires in the cable back and forth as if to break them. Success sometimes attends the endeavor, and the result is seen in what is called the "stranding" of the cable. This leads to a stoppage of the cars occasionally for a few minutes, and the event is heralded with great regularity by one of the afternoon prints, wherein it is announced in glowing headlines that the cable system is a failure, while the people of the North Side are advised to move into one of the other divisions of the city. Other cable systems have "loops," but they are simply used to reverse cars after they have been emptied, whereas the "loop" of the North



side company does the work of the entire system, and is constantly heavily taxed with loaded cars.

In no other way, probably, can the extreme exactions of the "loop" cable be better shown than by comparison. It is only 12,500 feet long, yet it handles all of the cars handled by the three other cables of the system, and beside this it has to overcome the tunnel grades and the strain at the curves which the other lines are free from. Every foot of it is taken in the hand of the "grip" time and again every day, and no less than 4,500 cars, carrying from 70,000 to 100,000 people, gather locomotion from it with the regularity that the sun rises. Each foot of it, to say nothing about the grades it has to contend with, is doing the work done by six feet of the main cable, and that it performs its duty so well and with so little hindrance shows that it is well cared for. But the facts are really more strongly put in the bare statement that, while the main cable lasts from twelve to fifteen months, the "loop" cable has to be renewed every four or five weeks. This is the story in a nutshell, and its telling ought not to be without its effect, especially since so many unkind, unreasonable and false and slanderous things have been ignorantly said against the company in this connection. It has been accused of about everything, and its transit system has been decried, and its management maligned, but the sequence shows that it has neither turned to the right nor to the left, but has constantly had an eye to the public welfare, and especially to so perfecting its "plant," without regard to expense, as to best promote rapid and safe transit for the North Side, and, at the same time, forward the material interests of its patrons in every possible direction. And it has not begun to tire in its laudable endeavor, but has in contemplation a great many improvements that cannot fail of hearty appreciation. One of these is the relief of the over-worked "loop" cable, which will shortly be in use. The plan is to so adjust and arrange the "plant" that an independent cable will take the cars from Clark or Wells streets and deliver them at the north approach to the tunnel. This will leave the "loop" cable to do the tunnel and South Side "loop" work, which will save it a number of its curves, and also a considerable portion of its present strain. Further than this, the calculation is that the change will extend the life of the cable from four or five weeks to nearly twice that number of months, and, at the same time, effectually put an end to the possibility of any serious delay

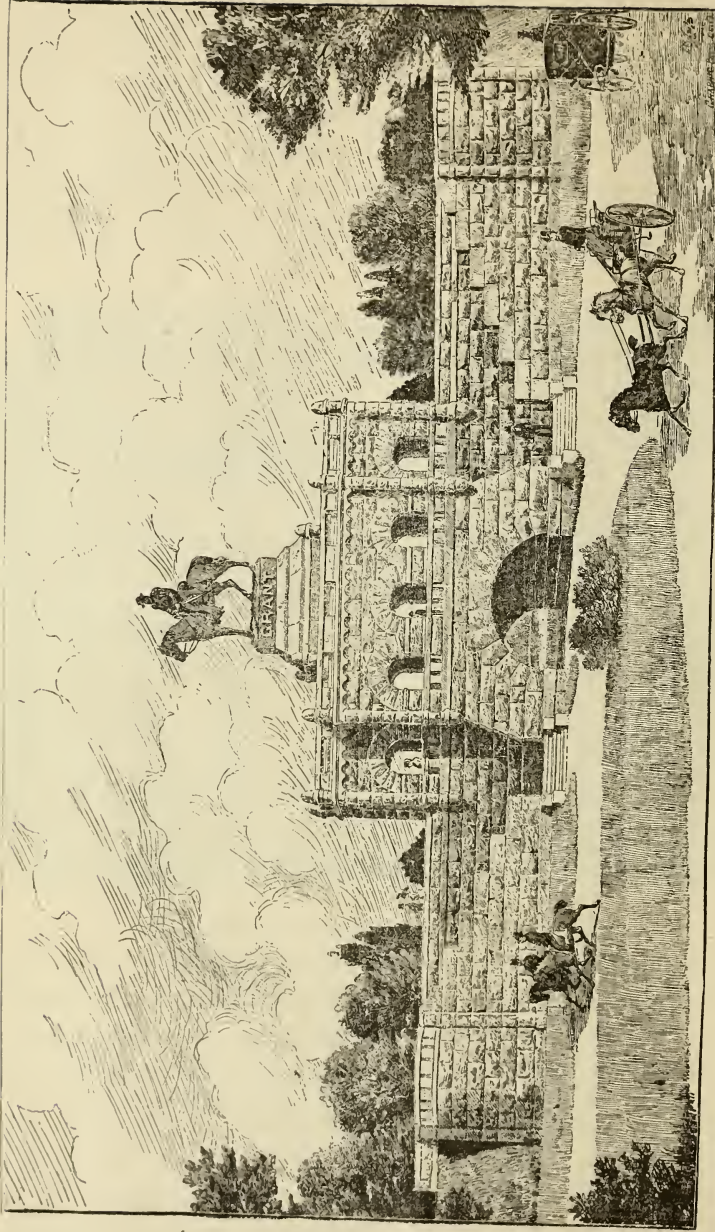
or annoyance from the causes heretofore most prolific in that line of effects. Then again, the change will have another advantage not to be overlooked, wherein it converts the North Side system into a complete loop in itself, so in the event of a break down or accident in the tunnel or on the South Side, the Clark and Wells street cars instead of being jammed on Illinois street, will take up the new cable and pass on around to the main cable again without stopping. Thus, the Clark street car will return by Wells street, and the Wells street car by Clark street, and the minimum of public inconvenience and delay will have been attained. A



VIEW OF THE CLARK STREET TENSION PIT.

breakage under these circumstances and conditions will be of no popular concern. It will simply affect the company, and not its patrons. The resident of Lake View will find the cable ready at all times to bring him or her down town, whereas the delay heretofore of half an hour on the "loop" has meant a similar delay all along the line. The passing of a procession on the South Side, or the breaking down of a wagon on the tracks has demoralized the entire system, but the days of strings of cars standing idly on a street are at an end, and the occasions of patrons waiting for "grips" and "tailers" along the line because of such demoralization



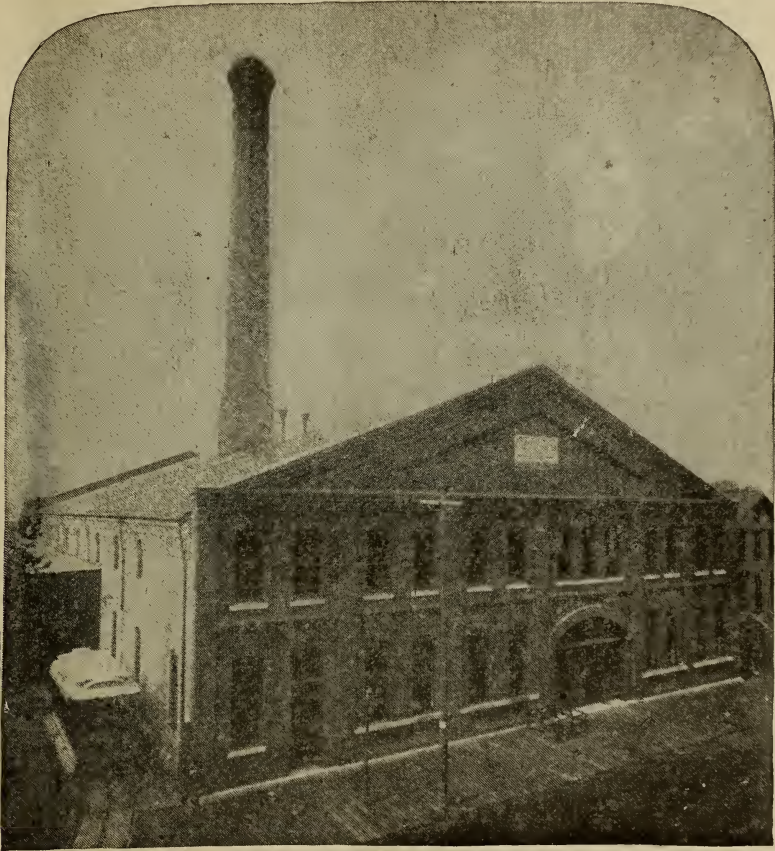


GRANT'S STATUE AND MONUMENT AT LINCOLN PARK, BUILT BY POPULAR SUBSCRIPTION,  
AT A COST OF \$55,000.



are to be remembered with the things of the past. The ambition of the company and its management is to have the cable system *perfect*, and nothing short of this will satisfy either.

The benefits and advantages of rapid transit to the North Side are not confined to any particular section, but are felt by the public at large—by the tourist passing this way, by the excursionist and



LINCOLN AVENUE POWER HOUSE.

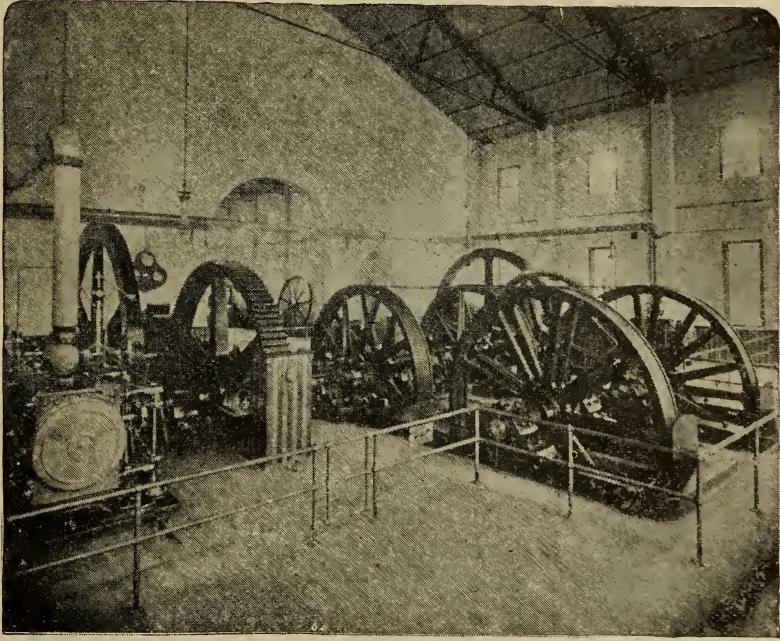
object-hunter, and by the thousands of visitors who are yearly attracted to Chicago from all parts of the world. It is true that the residents of the North Division are most directly and constantly benefited, and that to them the freedom from the bridge nuisance and the advantages of rapid transit are most appreciated, but it is equally true that nine-tenths of the visitors to Lincoln Park, come

from where they may, are patrons of the North Chicago Street Railroad Company. And the saying of this means more than appears at a glance, for this particular spot is known the country over, and the stranger would as soon think of seeing Chicago without a look at Lake Michigan, as he would without seeing the beautiful park spread out on the lake's shore, or discussing with the eye the many attractions it presents. The tract was originally laid out in 1864, and, at the time, embraced forty acres, adjoining the old "City Cemetery." It was named "Lake Park," from the fact of its proximity to the lake, and was intended as an addition to the cemetery, but this plan was ultimately changed, and it was named "Lincoln Park," in honor of the martyred president. In 1869 the legislature extended the park boundaries so as to embrace 250 acres, and, at the same time, a board of park commissioners was created, consisting of E. B. McCagg, J. B. Turner, Joseph Stockton, Jacob Rehm and Andrew Nelson. Two years later the power of appointing the commissioners was vested in the governor, and S. M. Nickerson, Joseph Stockton, Belden F. Culver, W. H. Bradley and Francis H. Kales were selected. Gen. Stockton has been a member of the board ever since, and next to him in continuous service has been F. H. Winston, who gave twelve years to the work. E. S. Taylor, the present secretary, has been with the board from the first, and has seen about \$4,000,000 expended, of which at least \$2,000,000 has been for improvements and maintenance.

This is not the place to go into details about the growth and development of Lincoln Park, except to show its relation to the public and the North Chicago Railroad Company. Pages could be written as to how it has improved from year to year, and then but half justice would be done. The company, however, is particularly gratified at being able to say that as the park has grown in beauty and attractiveness, the facilities for reaching it have multiplied, and that visitors are heard every day to remark about it, and to speak of the North Side cable system as one of the many added objects of interest and pleasure. A few years ago the park was a mere appendage to a graveyard, but it is now probably the prettiest and most popular breathing place in the world. Its visitors were in earlier days confined to funeral processions, and its music to burial dirges, but now people flock there from every condition of life to wonder at its floral beauties,



to revel in the delights of its lakes and shades, or to listen to the open-air concerts so freely provided. The tiny wooden tombstones, and the bleached marble slabs of the sepulchre, have given way to the grass plot, the hillside, and nature's sweetest perfume. Instead of the unsightly mounds of sand, elegant monuments have been reared to the memory of the good and great by affectionate hands and liberal purses. The German-Americans have honored their distinguished poet, Schiller, by perpetuating his memory in bronze; by popular subscription Gen. Grant has



VIEW OF THE LINCOLN AVENUE ENGINE ROOM.

been immortalized in stone and metal at a cost of \$55,000; the martyred Lincoln is remembered and ennobled by a monument costing \$40,000, the munificent gift of the lamented Eli Bates; the late Martin Ryerson, in remembrance of the Indians found here in the days of the early settlers, has contributed a monument known as the "Alarm Group," representing an Ottawa Indian and his family, at a cost of \$20,000; the late Samuel Johnson provided \$10,000 in his will for a monument to Shakespeare, which is about to be erected; citizens of Scandinavian descent headed by Robert



Lindblom, are preparing to rear a monument to Linnaeus, one of their distinguished scientists and scholars, at a cost of \$40,000, and there is to be added to all this in the near future the "Bates Fountain," to cost \$15,000, which was also the gift of Eli Bates. Then, again, there has grown up in the park a choice collection of wild animals, embracing most of the species from the ground hog to the elephant, while the lakes are filled with fowl at once attractive and pleasing. Most of the animals have been the gift of individuals, and it is no unusual thing for excursion parties to come from long distances to view the herds of buffalo, to see the climbing bears, pet the patient camels, watch the tireless sea lions, and witness the freaks of the numerous other specimens of the animal world which the plains and the forests have contributed.

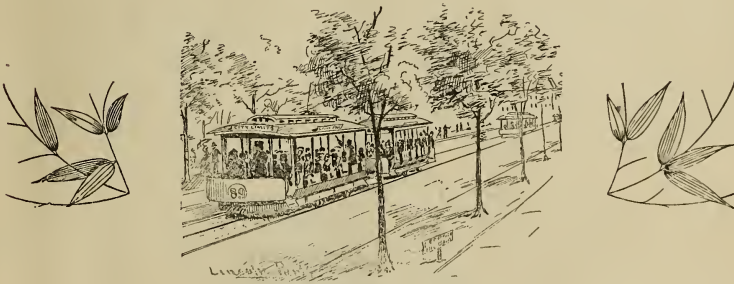
With all these attractions, and many more that could be spoken of, is it at all singular that the North Chicago cable system



AS IT WAS.

has the world for its patrons? And since the horse cars have given way to the progress of time, is it strange that as the facilities for reaching Lincoln Park have increased, the number of visitors has more than doubled in the last few years? It is estimated that the park often contains as many as 50,000 people at a time, and it is almost an every day occurrence that half that number of men, women and children are finding rest and comfort within its limits. It is the people's park, and to add to its accessibility the company has recently connected it with the West Side by a line of cars on North avenue. Still another line brings the people from Lake View and the north, but after all the cable system is the great feeder, and without it this ever popular resort, attractive as it is, would be next to deserted. That is, without the cable and the facilities of transit it has brought, there would be no adequate

means of reaching this magnificent North Side retreat, and strangers would be compelled to turn from the thought of breathing the pure air it affords, feasting the eye, or inhaling the fragrance its flower-beds give out. But as it is, it has been made as convenient of access as one's private garden, and while the railroad company does not claim any special credit for the part it has played, for it has simply done its duty in meeting the public want, yet it cannot refrain from congratulating itself that its interests have been allied with so important an improvement as Lincoln Park, and that it has been able by increasing the transit facilities to attract so much deserved attention to the North Side. At a casual glance the park is given a summer character, and almost any one would say that it was practically closed in the winter, but such is far from the case, the fact being that with the rapid transit afforded, it is fast becom-



As It Is.

ing a popular resort even when the ground is covered with snow. Thousands upon thousands go there in the winter to skate, and from the fact that the lakes are well kept, and travel is rapid, comfortable and sure, they come from far and near. Those of leisure go in the day time, while the other class go at night, and the result is the crowd is always large, and winter or summer the park does not want for patrons, nor the railroad company for use for its cars. The principal difference between summer and winter is the difference in the classes. The Sunday school children who picnic in the summer give way to those of more mature age in winter—the lunch basket yields to the skate bag, the boats to the ice, and thus it is that the park is a constant resort, except between seasons when nature is changing its raiment, and humanity is waiting for the inspiration the change always brings. Winter or

summer, therefore, Lincoln Park is never wanting in attendance, but is always the one great centre of attraction for both residents and visitors. And the spot, as beautiful as it is, is only in its infancy, thanks to the enterprise and wisdom of those in charge of it. The plans have already been perfected for a boating place along the Lake Front, where sailing and steam craft will vie in speed and beauty, and later on it would not be surprising to see the abutting beach transformed into one of the most desirable bathing resorts in the country.





## APPENDIX.

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Taking advantage of the experience of the several railway enterprises of the country in changing systems, and promoting the cause of rapid transit, it may not be amiss in this connection to state that in a comparatively short time the West Division of the city will be the rival of both the North and South Divisions, and in the enjoyment of a cable system which promises to be second to none in the world. The need of increased and rapid transit facilities for that section of the city was early appreciated by the West Chicago Street Railroad Company, and the moment it came into possession of the lines it set about supplying the want. There was some delay in getting authority from the city council to make the change, but this was very natural, especially since counter interests were opposing the improvement, and the people were in the course of being educated in all that pertains to street transit and improved railway facilities.

The ordinances as passed authorized the cabling of certain streets, but the company agreed that for the present Madison street and Milwaukee avenue would be used, they being main arteries, and then again for the reason that they would accommodate and benefit the greatest number of people. The work of getting out the necessary material was at once commenced, the contracts were let for the machinery and power houses, and in the meantime representatives of the company were inspecting similar undertakings from Maine to California. The object of examining other roads and systems was to take advantage of any and all improvements that had been made, the idea being to give to the West Side a cable system perfect in construction and operation, and a car service without fault, and hence above criticism. And the company believes it will more than succeed, for the reason that neither skill nor money has been spared in the planning and execution of the work, and if there is not a decided boom in population and values on the West Side at an early day, it will not be chargeable to the West Chicago Street Railroad Company, nor to the want of enterprise, liberality and energy on the part of its management. The

tearing up of the streets has been without scarcely a hindrance, and the interruption to business, about which there was considerable anticipation, has not been worthy of mention. To the contrary, the work has been done in a business-like way, and on every hand the company has been congratulated, not only on the character of the improvement, but on the fact that it has been put in without complaint or serious public inconvenience. These two lines will be in operation at the earliest possible day, and thereafter the work of extending the system will be commenced and attention will be given the feeding and cross-town lines. It is in contemplation to use the cable where it is practicable, but where it is not the present idea seems to be to employ other available power, the object being to dispense with the use of horses as soon as possible, and at the same time substitute therefor a power which will give rapid, safe and uninterrupted transit to the residents, present and prospective, of the great West Division.







